



Subcontracting

Components & subassemblies
for electric machines



TEC

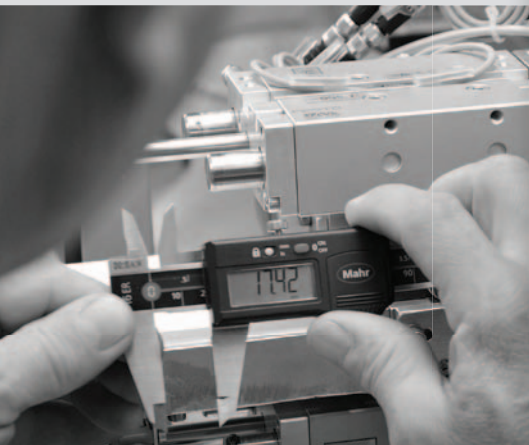
Electric Components

Complex solutions in outsourcing

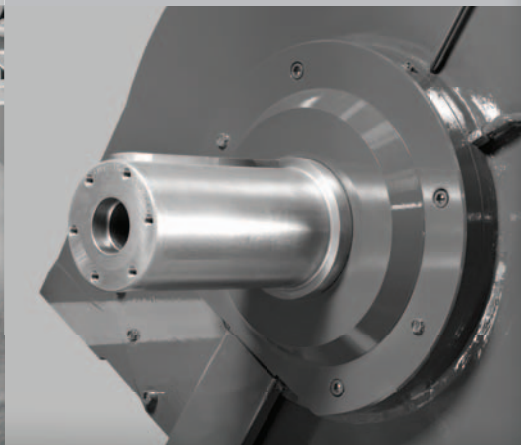
Independent producer of our own line
and supplier of custom-made products and services
with added value to the customer



Electric Drives



Electric Machines



Electric Components



Competence in the production of electric machines and parts
Supplier of machine parts and services for the manufacture of electric rotating machines.

Our long tradition in manufacturing and international experience
support sales to leading electro-technical companies around the world. Stable production processes and the ability to find solutions to meet even the most demanding customer needs.

Large machine park
State-of-the-art mechanical and electro-technical manufacturing equipment.

Expert knowledge and professionalism
in a well-coordinated team of qualified and experienced professionals. Dedication and care in providing a quality working environment.

Active and empathetic care in satisfying customer needs resulting in a transition from a supplier relationship **to a long-term partnership.**

Quality is a given
ISO 9001 + ISO 14001, OHSAS 18001, EN ISO 3834-2, EN 15085-2, DIN 18800-7, ČD V95, testing methods, audits and investments in precision measuring instruments.

Continuous improvement
in company processes with application of 5S, VSM, TPM, SMED and other state-of-the-art methods ensure the effective usage of resources and the elimination of waste.

Synergy
Combination of autonomy and cooperation within a product-structured divisional organization of the company.



TEC

Electric Components



„Now celebrating 95 years”



Reduction of costs

by taking over the pre-production and production stages, we enable you to streamline your manufacturing process. We also reduce your costs by optimizing your design solution.



Flexibility

thanks to the comprehensive services we offer, our wide range of production technologies and the capacity of our machine park.



Reduction of working capital

by taking over the warehousing phase and reducing your inventory costs.



Improving the supply chain

and reducing costs and risks thanks to a comprehensive range of outsourced services and the design of optimization solutions.



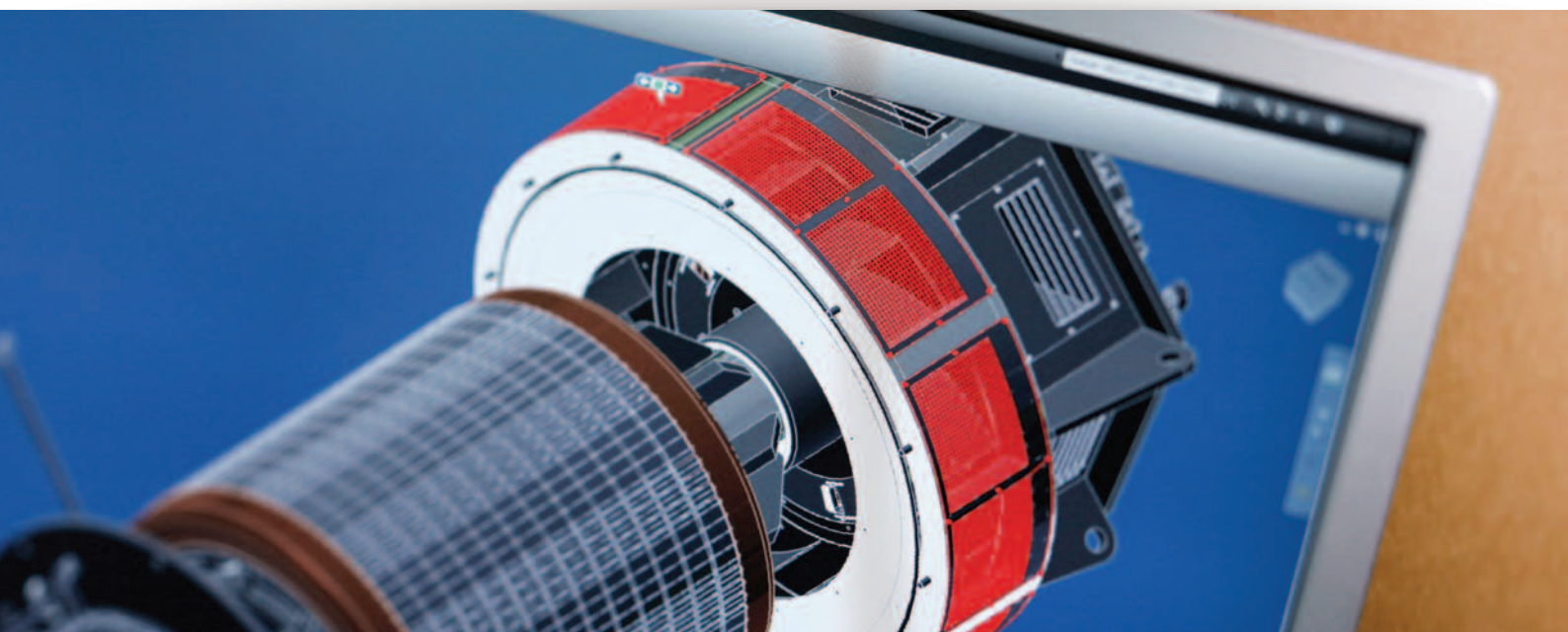
Quality

in our products and services and their continuous improvement resulting in added value to you.



On-time deliveries

by taking over the handling and storage phases of your production, we assume the risk for their planning, coordination and management.



Design of components

based on parameter specifications and the use of machines defined by the customer



Technological preparation for production

Drawings and processes of the conceptual model for the entire machine or its components



Optimization of design solutions

in order to reduce production costs and material usage



Production of machine parts

based on customer drawings



Transport



Vendor managed inventory



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Electric Components

Frames | End shields | Shafts

Frames:

Diameter up to 3,200 mm, height up to 2,800 mm,
weight up to 50 tons on a vertical mill

End shields:

Diameter up to 3,200 mm,
weight up to 50 tons on a vertical mill

Shafts:

Diameter up to 720 mm, length up to 3,900 mm,
weight up to 6 tons

Circular rotor laminations
diameter up to 2,000 mm

Circular stator laminations
diameter up to 1,200 mm

Segmented laminations
30°, 45°, 60°, chord up to 1,180 mm
Press tools of our own design
and production

Laminations



Stator and rotor stacks

Non-wound stacks
Wound stacks
Wound stacks including impregnation

Round-wire coils
Flat-wire coils
Rotor and stator windings



Coils and winding



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Electric Components

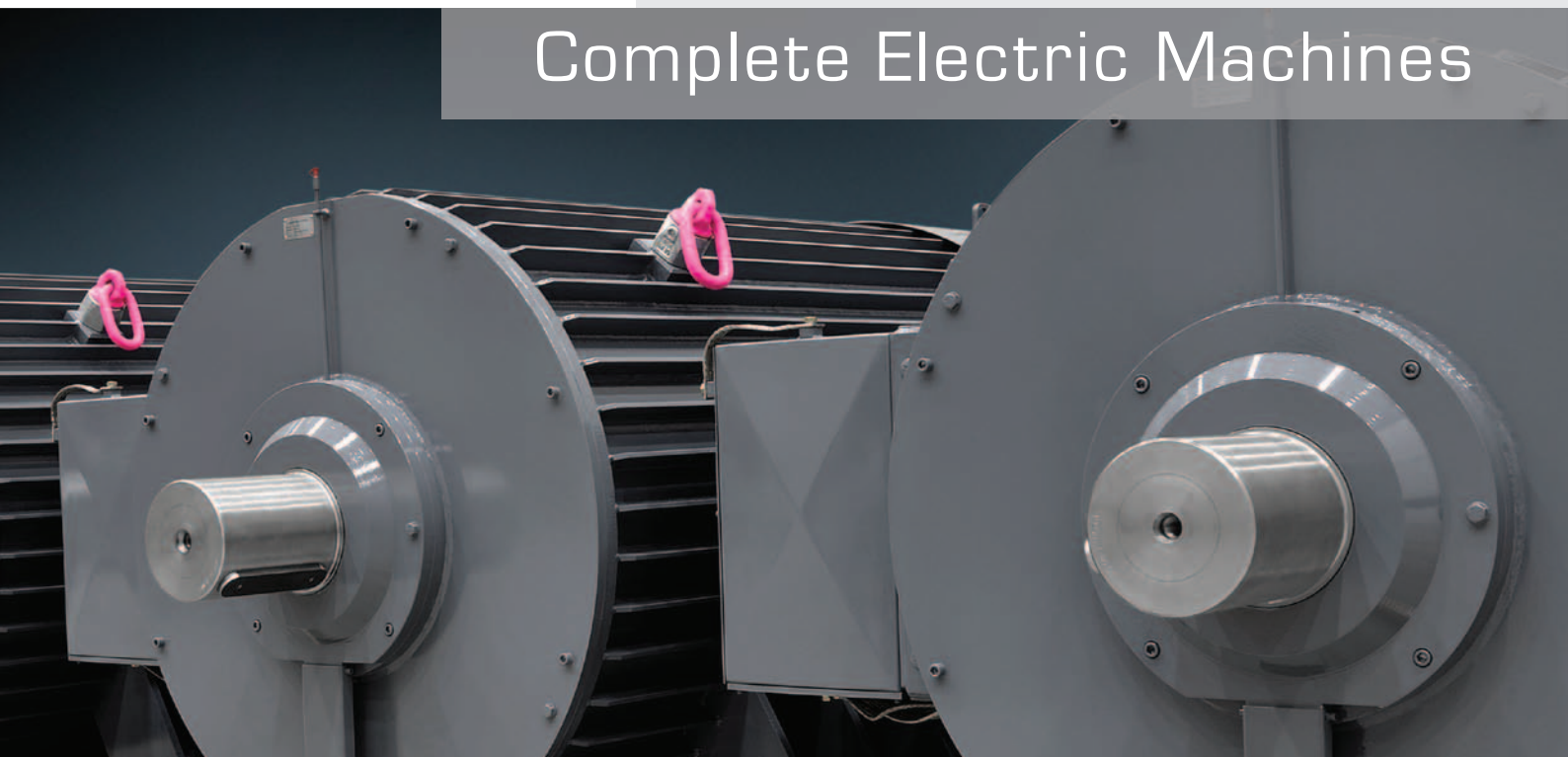
Additional machine parts

Terminal boxes
Fans
Fly-wheels
Base frames
Pressure rings
Annular rings
Distance pieces
Feet
Additional construction components

Synchronous generators | Asynchronous generators
Synchronous motors | Asynchronous motors
Permanent magnet machines | Exciters
Other electric rotating machines

Outputs 100 - 20,000 kW, voltages 400 - 13,800 V,
speed 100 - 1,500 rpm, degrees of protection IP 23 - IP 65,
horizontal as well as vertical mounting arrangement,
synchronous generators with cylindrical or salient-pole rotors,
machines with short-circuit armatures, permanent magnets
and other according to the customer's wish.

Complete Electric Machines





1



Lamination stamping

CNC and manual stamping. CNC and manual notching, shear-cutting, deburring, stacking, stamping tool design and manufacturing, hysteresis losses and other parameter measurements.

Small as well as large series.



Welding and sheet-metal works

Robotic and manual welding. MAG, MIG, TIG, electrode, magnetic pulse welding, welding in a protective atmosphere. Penetration, magnetic, ultrasonic, pressure water etc. tests. Weldments up to 50 tons. Certification acc. to EN ISO 3834-2, DIN EN 15085-2, DIN 18800-7, ČD V95/5:2009. Small as well as large series.



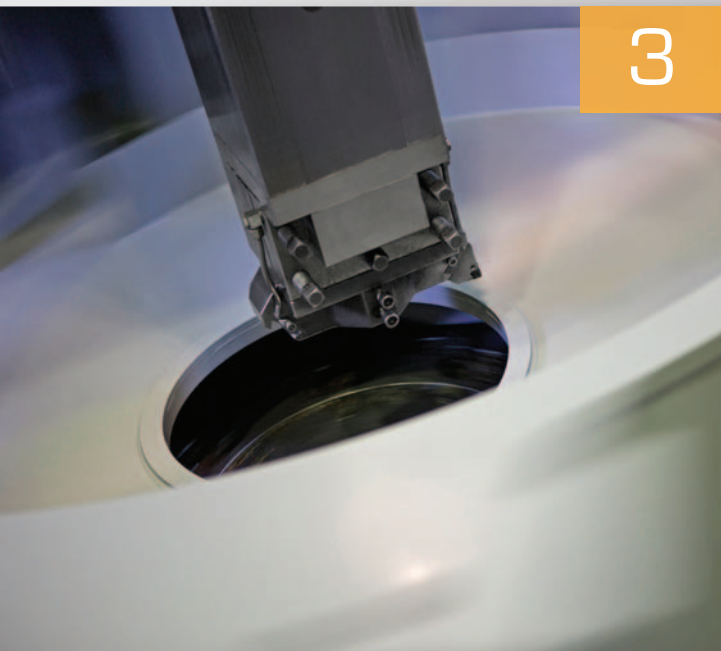
2



Machining

CNC and classical turning, CNC machining, milling, boring, surface and cylindrical grinding, coordinate drilling, wire-cutting, wire-sinking.

Penetration, magnetic, ultrasonic, pressure water etc. tests. 3D precision measuring instruments Aberlink Zenithtoo and Leica Absolute Tracker. One-piece as well as series production.



3



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4



Winding

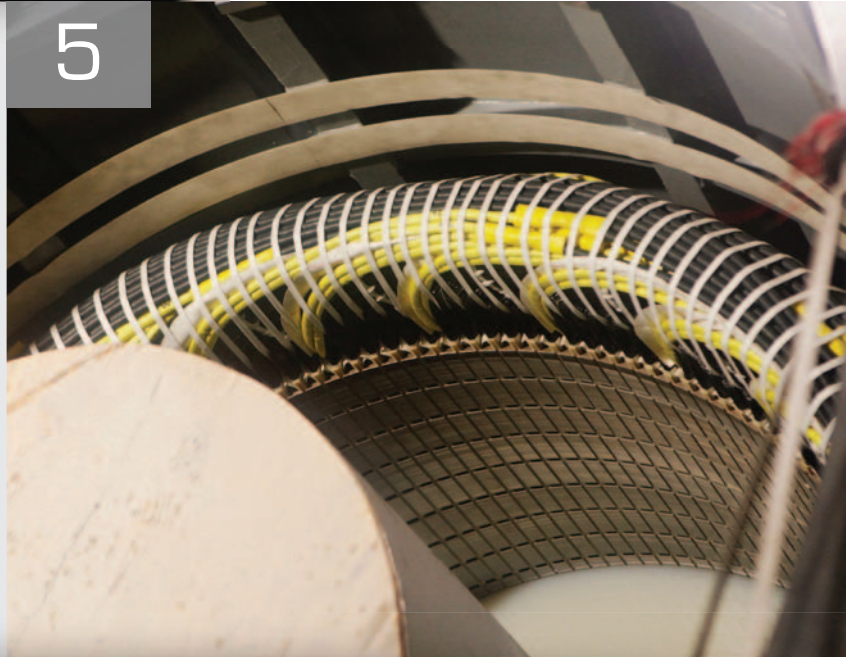
Round-wire and flat-wire winding.
Rotor, stator, exciter winding.
Winding bandage.

5



Impregnation

Impregnation of products with diameters of up to 3.5 m and lengths of up to 5.0 m in H-class epoxy-resin. Production of epoxy laminates and epoxy fillings. Drying in a drying oven.



6



Assembly

Assembly of horizontal as well as vertical machines, including slide bearings and balancing.

7



Testing

Test stands for the testing of electric rotating machines with weights of up to 80 tons. Standard and temperature-rise tests.

8

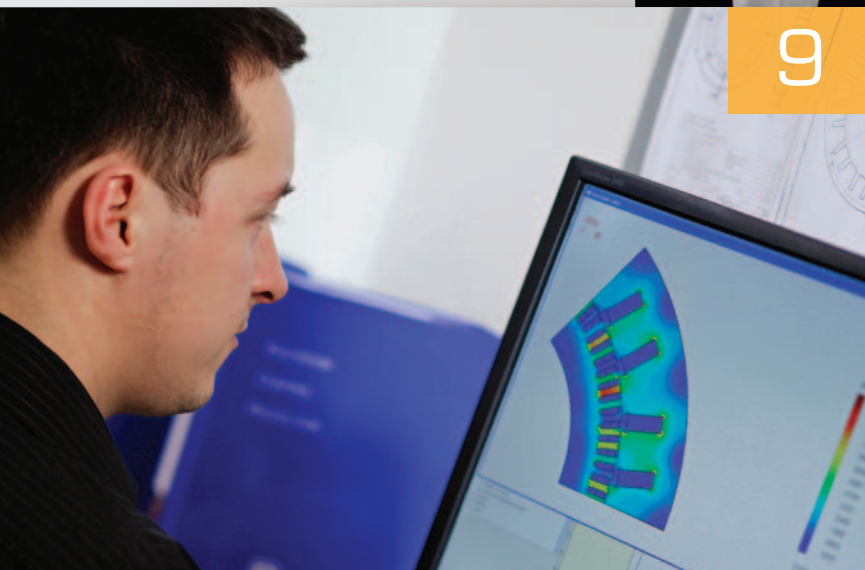


Painting

Airless or compressed-air painting. Surface finish treatment with up-to-date technologies and the desired coating compositions.



9



CAD design work

Extensive team of experienced designers, own Research & Development, 2D and 3D software equipment.



With 100 years of experience in the production of electrical equipment, TES aspires to be the global partner of choice for purpose-built rotating electrical machines, drives and components.



Hydro Power
Generation



Marine
& Offshore



Steel
Industry



Subcontracting



General
Industry



Wind Power
Generation



Diesel Power
Generation



Lifting
& Handling



Oil & Gas,
Petrochemicals



Construction
& Mining



Air Handling
& Cooling



Electric
Traction



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